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Spider mites may damage drought-stressed corn

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Spider mites may damage drought-stressed corn

by Marlin E. Rice, Department of Entomology

Minor spider mite injury is being found in scattered locations across Iowa in soybeans, but no injury has yet been reported in corn. Some areas, particularly in northwestern Iowa, are under drought stress and these fields also may develop economic infestations of spider mites. If mites do appear, a miticide may be necessary to control the population.

University of Nebraska entomologists Bob Wright, Jack Campbell, and Gary Hein have produced an economic threshold table based on spider mite research in Texas. Because we don't have any research on spider mites in Iowa corn, using this decision table may be helpful for Iowa producers.

In the field, first check 10 plants from five locations and record the number of leaves with mites. Calculate the percentage of leaves with mites. Determine the approximate market value of crop [= expected yield (bushels per acre) multiplied by the expected corn price (dollars per bushel)] and control costs (dollars per acre). If the percentage of leaves infested with mites is greater than the first value in the table (the black numbers), estimate the percentage leaf area infested with mites. Refer to the second value in the table (the red numbers); if the number for your field is greater than the second number, applying a miticide for mite control should be profitable. However, corn that has reached the dent stage is unlikely to benefit from an application for mite control. Insecticides labeled for mites in field corn are Capture® and dimethoate. Lorsban 4E®, a product recommended for spider mite control in soybeans, is NOT labeled for use on field corn. Read and follow all label directions.

Economic injury levels for spider mites on corn based on percentage of infested leaves (black numbers) and percentage of total leaf area damaged (red numbers).

Control Cost/Acre	Market Value ($)											
($)	200		300		400		500		600		700	
5	15	8	10	5	7	4	6	3	5	3	4	2
10	29	16	20	10	15	8	12	6	10	5	8	4
15	44	23	29	16	22	12	8	9	15	8	13	7
20	59	31	39	21	29	16	24	13	20	10	17	9
25	74	39	49	26	37	20	29	16	25	13	21	11

Source: University of Nebraska

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Marlin E. Rice is professor of entomology with extension and research responsibilities in field and forage crops.

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